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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|-----------------------|---------------------|------------------|
| 10/728,084  | 12/03/2003  | Pentti Juhani Eromaki | 4447-67437-01       | 7665             |
| 24197   | 7590        | 09/30/2005            | EXAMINER            |                  |
| KLARQUIST SPARKMAN, LLP<br>121 SW SALMON STREET<br>SUITE 1600<br>PORTLAND, OR 97204 |             |                       | MAKI, STEVEN D      |                  |
|   |             |                       | ART UNIT            | PAPER NUMBER     |
|   |             |                       | 1733                |                  |

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/728,084

Applicant(s)

EROMAKI, PENTTI JUHANI

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date 071904,031504.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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1) Claim 18 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The description of "the number of said edge portions is three and the number of said jaw fingers is three or four" in claim 18 (dependent on claim 16) broadens "a number of jaw fingers in said installation tool, which number is equal to the number of said edge portions" in claim 16.

2) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3) **Claims 1-6, 8-22 and 30-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pettersson (US 3385742) in view of Ostrovskis (US 2002/0050312) and optionally further in view of Niedzwiecki (US 3348291).**

Pettersson discloses a method for making a studded tire comprising:

providing a motor vehicle tire 10 (pneumatic tire) having a tread;

forming holes 11 in the tread;

providing studs wherein each stud comprises a bottom flange 13, a neck 15, a bowl 15 and a tip 16 (figure 1);

providing an installation tool having "a number of fingers" such as three fingers 17, 18, 19; and

using the installation tool to install the studs in the holes wherein the fingers are inserted in the hole, the stud is moved using plunger 22 such that the stud is pressed against the shoulders of the fingers to force the fingers radially outward when the stud flange 13 is sliding along the fingers into its bottom position in the hole between the end portions of the fingers;

maintaining the plunger in contact with the stud and simultaneously withdrawing the fingers from the hole so that the plunger prevents withdrawal of the stud from the hole.

Hence, Pettersson substantially discloses the claimed combination of tire studs and tool and the claimed method of installing studs. Pettersson does not recite the stud having a bottom flange with *the claimed shape*.

As to claim 1, it would have been obvious to one of ordinary skill in the art to use Ostrovskis's tire studs in Pettersson's process for installing studs in a tire since (1) Ostrovskis's studs, like those of Pettersson, have a tip, top bowl, neck and bottom flange and (2) Ostrovskis teaches using a non-round shape for the tip and bottom flange of the stud with so that the buckling of the studs of the tire can be greatly reduced which improves the ability to accept force from below (paragraph 9). As to types of non-round shapes suggested by Ostrovskis, see figures and paragraph 27.

With respect to the "fingers being in contact with at least two such first side portions of the bottom flange" (emphasis added), Pettersson teaches pressing the bottom flange of the stud against the fingers so that the fingers expand. In any event: As to claims 1 and 16, it would have been obvious to one of ordinary skill in the art to

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use Pettersson's stud installation tool such that fingers of the tool are in contact with two first portions at the shorter distance (claim 1) / the number of fingers is equal to the number of edge portions (claim 16) in view of (1) Pettersson's teaching to (a) use "a number of fingers" (col. 4 lines 6-17) against which the bottom flange presses so that the fingers expand and the stud can move into the hole; (2) the non-round shape of the bottom flange suggested by Ostrovskis and (3) Niedzwiecki's suggestion to use four fingers (figures 7-11) for a tire stud installation tool to eliminate any possibility that the tire or the like will contact the studs 42 to provide resistance to the insertion (col. 5 lines 3-9).

As to claim 2, Niedzwiecki suggests four fingers.

As to claims 3 and 4, Ostrovskis suggests an oval shaped bottom flange.

As to claim 5, it would have been obvious to use hard cermet (e.g. sintered carbide) for the tip of the stud as claimed since it is taken as well known / conventional in the tire stud art to use "cermet" (e.g. carbide) for the tip of a tire stud (the cermet material secured in the stud by extending the cermet material a desired length through the body of the stud) so that the remainder of the tire stud can be made of a different material.

As to claim 6, Ostrovskis suggests orienting a non-round tip at an angle to the non-round flange.

As to claim 8, Pettersson suggests a circular hole.

As to claims 9-14, the claimed fingers read on Pettersson's fingers.

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As to claim 15, it would have been obvious to provide the bottom flange of the stud with a bevel as claimed since it is taken as well known / conventional per se in the tire stud art to provide the bottom flange of a tire stud with a bevel in order to facilitate insertion.

As to claims 17-21, note the number of edge portions of the non-round bottom flange shape suggested by Ostrovskis.

As to claim 22, Ostrovskis suggests a rounded rectangle as a non-round shape (paragraph 27).

As to claim 30, Pettersson suggests a circular hole.

As to claims 31-36 and 40-41, the claimed fingers read on Pettersson's fingers.

As to claim 37, see figures 1, 3, 4 of Pettersson. In any event: it would have been obvious to provide the flange of Pettersson with a bevel as claimed since it is taken as well known / conventional per se in the tire stud art to provide the bottom flange of the tire stud with a bevel in order to facilitate insertion.

As to claim 38, it would have been obvious to one of ordinary skill in the art to turn Pettersson's fingers as claimed since Ostrovskis suggests disposing the tire studs in the tire at various orientations.

As to claim 39, it would have been obvious to one of ordinary skill in the art to use Pettersson's stud installation tool to install two types of studs as claimed in view of Ostrovskis's teaching that different types of studs may be installed in the tire.

**4) Claims 7 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pettersson in view of Ostrovskis and optionally further in view of Niedzwiecki as applied above and further in view of Eromaki (US 6374886).**

As to claims 7 and 29, it would have been obvious to provide the hole with a bottom expansion in view of the suggestion from Eromaki to provide the hole in which a non-round stud is inserted with a bottom expansion.

**5) Claims 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pettersson in view of Ostrovskis and optionally further in view of Niedzwiecki as applied above and further in view of Finland 9/65.**

It would have been obvious to provide Ostrovskis' tire stud with the claimed features as set forth in claims 23-28 in view of (1) Ostrovskis' teaching to use a non-round shape for the tire stud and (2) the specific non-round shape for the upper portion of a tire stud shown by Finland 9/65.

#### Remarks

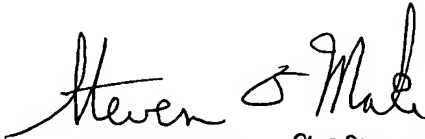
- 6) The remaining references are of interest.
- 7) No claim is allowed.
- 8) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki  
September 28, 2005

  
STEVEN D. MAKI 9-28-05  
PRIMARY EXAMINER  
~~GROUP 1300~~  
AU 1733